

US-PAT-NO: 6514787  
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TITLE: Opto-electric mounting apparatus

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Opto-electric mounting apparatus

The present invention relates to the attachment of an optical coupler to a circuit board and, more specifically to the piggy back attachment of an optical coupler to another component, such as an integrated circuitry (IC) mounted on a circuit board.

1. A method of mounting an opto-electric device to an integrated circuit comprising: placing an integrated circuit on a substrate in a first plane; placing an opto-electric device on said substrate in a second plane; connecting said opto-electric device to said integrated circuit through the use of cross-plane connections.

11. A method of mounting an opto-electric device to an integrated circuit comprising: forming said opto-electric device in a package; placing said opto-electric device on top of said integrated circuit; sealing said package; and mounting said package to a substrate.

12. A method for operating an opto-electric device, the method comprising: receiving an optical signal at an input of said opto-electric device, said opto-electric device being located in a first plane; and passing an electrical signal representative of said optical signal to an

integrated circuit mounted  
in a second plane spaced apart from said first plane,  
wherein said electrical  
signal passes from said opto-electric device to said  
integrated circuit via a  
cross-plane conductor.

13. A method for operating an opto-electric device, the  
method comprising:  
receiving an electrical signal at an input of said  
opto-electric device from an  
integrated circuit, said integrated circuit being located  
in a first plane;  
and passing an optical signal representative of said  
electrical signal to an  
output of said opto-electric device mounted in a second  
plane spaced apart from  
said first plane, wherein said electrical signal passes  
from said integrated  
circuit to said opto-electric device via a cross-plane  
conductor.

L Number	Hits	Search Text	DB	Time stamp
1	7	"5991435"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:16
2	4	"6176011"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:20
3	4	"6199272"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:22
4	0	mount\$3 near information near (apparatus and method)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:24
5	1	mount\$3 near2 collect\$3 near (apparatus and method)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:25
6	1175	(mounted near3 (circuit near boards)) and optical near signal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:26
8	151	(mount\$3 near3 (apparatus and method)) and mounted near circuit near boards	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:29
9	4	((mount\$3 near3 (apparatus and method)) and mounted near circuit near boards) and optical near signal	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:36
10	59	((mount\$3 near3 (apparatus and method)) and mounted near circuit near boards) and light	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:36
7	1	(mount\$3 near2 collect\$3) near (apparatus and method)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB	2003/04/28 17:41

L Number	Hits	Search Text	DB	Time stamp
1	5	"5628111" and (detect or measur\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:21
2	4	"6199272"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:19
3	9	"5628111"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:23
4	2738	mount\$3 near3 (apparatus and method)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:26
5	190	(mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:28
6	152	((mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits) and process\$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:32
7	43	((mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits) and process\$3) and 29/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:54
8	3	((mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits) and process\$3) and 356/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:55
9	4	((mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits) and process\$3) and 250/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:56
10	7	((mount\$3 near3 (apparatus and method)) and (detect\$3 or measur\$3) near9 circuits) and process\$3) and 382/\$.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/28 10:56